

REMARKS

This application has been reviewed in light of the Office Action dated November 3, 2004.

Claims 1-20 are pending in the present application. Claims 1, 7 and 13 are independent.

Claims 1, 3, 5, 6, and 9-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takase et al. (US 5,276,600) in view of Zhao et al. (US 6,382,816 B1).

Claims 2, 4, 7, and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takase et al. (US 5,276,600) in view of Zhao et al. (US 6,382,816 B1), and further in view of Deloy (US 6,336,728 B1).

Claim 20 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Takase et al. (US 5,276,600) in view of Zhao et al. (US 6,382,816 B1) and further in view of Simpson (US 6,399,228 B1).

The applicants respectfully request reconsideration, for the following reasons.

To summarize, among other things, the present invention includes a lamp reflector that has a light transmission region between an arm portion of the reflector and the emitting surface of the guide plate. This light transmission region must be sufficiently small to reduce the intensity of periodic bright lines to an inconspicuous level, for example, by making the light transmission region less than 5 micrometers thick. The light transmission region may comprise a transparent protective layer, for example comprising a metal-series compound and a resin.

As understood, Takase et al. (US 5,276,600) discloses a curved reflector having a reflecting film 4, which includes a flexible substrate 5 and a high reflectance layer 6, which can be used as a lamp house for a lamp which can be employed as a backlight for a liquid-crystal display panel (col. 1, lines 11-16) that may include a light guide plate 9 (col. 3, lines 39-52, and FIG. 4 and FIG. 5). Takase et al. further discloses, separately, a transparent protective layer provided with the substrate on the side opposite to the high reflection layer (col. 4, lines 63-68). However, Takase et al. fails to disclose a light transmission region defined between an arm portion of the reflector and an emitting surface.

The Office Action admits that Takase et al. instructs that the substrate film thickness should be at least 5 micrometers, and does not appear to explicitly specify a thickness of the light transmission region or transparent protective layer. In addition, the Office Action admits (page 5 of the Office Action) that Takase does not appear to explicitly specify a lamp reflector with arm portions disposed along an emitting surface and back surface and light transmission regions of a specified thickness. Thus, Takase et al. fails to teach or suggest each and every element of the present invention, and in particular, Takase et al. fails to teach or suggest the presence of a light transmission region defined between an arm portion of the light reflector and the light guide plate.

Zhao et al. (US 6,382,816) is understood to disclose a reflector lamp with a parabolic shaped housing with an interior surface coated with a layer of silver and a protective silica oxide layer disposed thereon.

However, Zhao et al. fails to teach or suggest, among other things, a light transmission region defined between an arm portion of the light reflector and a light guide plate. Therefore, there is no motivation or suggestion in Takase et al. and Zhao et al. to combine their teachings to arrive at the present invention.

As understood, Deloy (US 6,336,728) discloses a luminaire for back lighting a flat panel display, including a lamp chassis 105 that supports a serpentine lamp 110, and a light guide 115 that has a planar section 310 and multiple protruding sections 320 adapted to fit between adjacent sections of lamp 110 and edges of flat panel display 110 (col. 2, lines 30-37). Light guide 115 enhances the luminance uniformity by capturing light at the lamp, through total internal reflection within light guide 115, and directing it forward over front surface 311 of the light guide (col. 4, lines 19-22, and FIG. 3B). The Office Action cites leg portions of Deloy. However, as understood, the leg portions of Deloy are portions of the light guide 115. By contrast, the arm portions of present invention relate to the lamp reflector. Applicants submit that the leg portions of the light guide of Deloy are not equivalent to the arm portions of the reflector of the present invention.

The Office Action alleges that it would be obvious to include the leg portions of Deloy in a flat panel display guide to reduce dead space. However, the arm portions of the present

invention are not used to fill "dead space," and this argument is not relevant to the present invention. As discussed above, the leg portions of Deloy are not equivalent to the arm portions of the present invention. Thus, Deloy fails to overcome the deficiencies of Takase et al. and Zhao et al., and fail to teach or suggest a side backlight unit in which a light transmission region is defined between arms of the lamp reflector and the guide light plate, having a thickness that is sufficiently small so that periodic bright lines are inconspicuous on the display.

Therefore, there is no motivation or suggestion in Takase et al., Zhao et al. or Deloy to combine the teachings of those reference to arrive at the present invention.

As understood, Simpson (US 6,399,228) discloses a multi layer interference coating comprising at least one multi layer stack deposited on a reflective layer. However, Simpson fails to teach or suggest a light transmission region between arms of a reflective body and a light guide plate that has a thickness sufficiently small so that periodic bright lines are inconspicuous on a liquid crystal display. Thus, Simpson fails to overcome the deficiencies of Takase et al., Zhao et al., or Deloy, as discussed above, and there is no motivation or suggestion in Takase et al., Zhao et al., Deloy or Simpson to combine the teachings of these references, and do not render obvious the invention of claims 1, 7 and 13.

Applicants submit that independent claims 1, 7 and 13 are patentable over the prior art of record and are in condition for allowance. The other claims in this application are each dependent from one of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, the applicants respectfully request favorable consideration and early passage to issue of the present application.

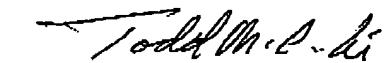
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Respectfully submitted,

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